

054030-0031nonactincluster.ST25.txt
SEQUENCE LISTING

<110> Shen, Ben
Hyung-Jin, Kwon

<120> METHODS OF DIRECTING C-O BOND FORMATION UTILIZING A TYPE II
POLYKETIDE SYNTHASE SYSTEM

<130> 054030-0031

<150> US 60/405,245
<151> 2002-08-22

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 35 40 45
 Glu Leu Pro Leu Arg Ile Ala Gly Thr Val Asn Gly Trp Asp Pro Glu
 50 55 60
 Thr Glu Leu Pro Leu Ser Glu Arg Gln Ile Arg Arg Ser Ser Arg Ala
 65 70 75 80
 Gly Leu Met Ala Thr Gly Ala Val His Arg Ala Leu Glu His Ala Gly
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 Leu Ser Ala Asp Asp Leu Asp Pro Gly Arg Thr Ala Leu Val Ala Cys
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Arg Asp Glu Gly Val Ala Ala Leu Gly Met Glu Tyr Trp Leu Asn Gly
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Thr Pro Pro Ser Val Val Gly Thr Val Ala Ser Gly Leu Arg Leu Pro
145 150 155 160

Cys Gln Thr Leu Ser Val Ala Gly Ser Cys Asn Val Ala Leu Arg Thr
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Leu His Leu Val Gln Gln Met Phe Arg Cys Gly Asp Ile Asp Arg Ala
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Ile Val Val Gly Val Asp Thr Thr Val Asp Pro Val Phe Val Ala Gly
195 200 205

Thr Ser His Thr Gly Arg Ser Gly Tyr Arg Ala Ser Ser Leu Ser Asp
210 215 220

Asp Pro Ala Asp Val Arg Pro His Asp Glu Ile Gln Thr Gly Asn Ala
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Thr Gly Glu Gly Ala Leu Ala Val Val Leu Glu Asn Pro Ala Ala Thr
245 250 255

Gly Asp Arg Pro Gly Leu Leu His Arg Ala His Leu Arg Thr Ser Arg
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Ser Asn Gly Pro Ser Thr Val Ala Thr Gly Pro Pro Ala Asn Val Val
275 280 285

Gly Asp Val Leu Ala Thr Leu Ala Ser Ala Arg Arg Gly Leu Gly Asp
290 295 300

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305 310 315 320

His Leu Cys Gln Ala Leu Ala Gly Val Lys Glu Ala Ala Gly Tyr Gly
325 330 335

Gly Glu Leu Arg Leu Thr Asn Gln Glu Ala Val Phe Gly His Val Ala
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Gly Thr Gly Gly Leu Val Lys Leu Leu Gly Ser Leu Leu Met Leu Arg
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Glu Leu Leu Pro Asp Ile Pro Ala Arg Tyr Leu Arg Ser Tyr Ala Asp
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Val His Leu Tyr Gly Leu Ile Ser Leu Ala Glu Ala Cys Arg Asp Ala
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Gly Leu Asp Tyr Gly Lys Gly Glu Leu Arg Gly Ala Asp Val Leu Thr
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Asp Ala Asp Pro Ala Thr Val Thr Pro Ser Asp Ala Lys Ser Leu Phe
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Val Arg Leu Leu Val Ala Gly Thr Ser Ser Asp Val Gly Pro Val Gln
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Ala Ala Leu Leu Gly Ser Thr Gly Ala Asn Tyr Thr Val Ser Cys Gly
145 150 155 160

Cys Ala Ser Ser Ser Val Leu Leu Gly Ile Ala Arg Met Met Ile Ala
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Ser Gly Gln Ser Asp Leu Val Val Val Thr Gly Val Asp Arg Phe Asp
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Thr Glu Arg Val Leu His Gly His Arg Leu Arg Glu Val Val Glu Arg
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054030-0031nonactincluster.ST25.txt

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Tyr Gly Asp Gly Ser Val Thr Leu Ile Leu Glu Ser Arg Glu His Ala
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260 265 270

Thr Arg Gly Gly Leu Asn Ser Ala Val Ala Ile Asp Thr Gly Gly Thr
275 280 285

Gly Leu Ala Glu Ala Ala Arg Arg Ala Leu Gly Asp His Thr Ser Leu
290 295 300

Gly Arg Ile Pro Tyr Val Asn Gly Gly Gly Glu Gly Asp Ala Leu Phe
305 310 315 320

Thr Arg Ile Glu Ser Asn Ala Val Arg Ala Leu Trp Gly Asp Arg Ser
325 330 335

Glu Gln Val Leu Val Ser Ser Gln Glu Ala Cys Phe Gly His Ser Gly
340 345 350

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355 360 365

Glu Gly Glu Val Cys Pro Thr Ala Asn Cys Ala Thr Pro Ser Pro Val
370 375 380

Cys Thr Phe Asp Pro Val Pro Gly Thr Arg Thr Arg Ala Leu Gly Phe
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Pro Ala Ala Pro Tyr Ala Leu Met Pro Asp Gly Asp Leu Trp Thr Tyr
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Ala Arg Thr Leu Arg Glu Thr Glu Glu Thr Ala Ala Ala Leu Gln Ala
50 55 60

Leu Gly Val Val Pro Gly Glu Leu Val Leu Ser Trp Leu Pro Asn Gly
65 70 75 80

Pro Asp Ala Leu Arg Ala Trp Tyr Gly Val Asn Leu Ala Gly Ala Val
85 90 95

Leu Val Pro Leu Asn Ile Ala Tyr Arg Gly Ala Ile Leu Arg Gln Val
100 105 110

Ile Ala Asp Ser Gly Ala Glu Val Leu Ile Cys Arg Pro Ser Leu Ala
115 120 125

Ala Arg Leu Glu Asp Ser Asp Asp Ala Val Gly Ala Val Arg Thr Val
130 135 140

Val Leu Leu Pro Gly Pro Glu Asp Ala Ala Gln Asp Val Glu Ala Leu
145 150 155 160

Ala Gly Arg Leu Ala Thr Arg Phe Arg Val Glu Thr Ala Leu Arg Ala
165 170 175

Asp Arg Ala Glu Phe Ala Glu Pro Val Pro Ala Pro Arg Pro Trp Asp
180 185 190

Pro Gln Thr Val Ile Tyr Thr Ser Gly Thr Thr Gly Pro Ser Lys Gly
195 200 205

Val Val Ser Ser Tyr Ala His Leu Tyr Ser Ser Cys Thr Ala Ala Phe
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His Gly Met Ala Gly Pro Glu Asp Arg Tyr Leu Leu Gln Leu Pro Leu
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Phe His Ala Gly Gly Thr Ile Gly Ala Tyr Gly Met Leu Val His Gly
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054030-0031nonactincluster.ST25.txt

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Pro Ala Glu Thr Ala Ala Val Trp Arg Asn Gly Trp Phe His Thr Gly
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Phe Leu Arg Glu Arg Leu Ala His Phe Met Leu Pro Arg Tyr Ile Arg
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500

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